Emerging Opportunities Program
Catalyst Grants Request for Proposals

The Graham Sustainability Institute is soliciting **Catalyst Grant** proposals for projects that support collaborative sustainability research planning and partnership development and/or enhance the real-world application of sustainability research.

KEY DATES

September 10, 2018	Request for proposals (RFP) released
October 8, 2018 (11:59 PM EDT)	Letters of Intent due (required)
November 12, 2018 (11:59 PM EST)	Proposals due
Late December 2018	Funding announcement
January 2019	Anticipated project start date

This is a recurring funding opportunity, with RFPs released in the fall and winter (September and January), as resources allow.

FUNDING

Up to $10,000 over eight months. Approximately three grants per funding cycle (September and January).

ABOUT THE GRAHAM SUSTAINABILTIY INSTITUTE

The Graham Institute catalyzes and facilitates sustainability-focused collaborations involving faculty, students, and external stakeholders. We work with organizations to understand specific needs and foster connections with relevant expertise throughout the university. We link science to real-world action by supporting the work of collaborative teams spanning multiple disciplines and sectors. We also believe diversity, equity, and inclusion are key to individual empowerment and the advancement of sustainability. For more see: www.graham.umich.edu.

WHAT IS SUSTAINABILITY?

The Graham Institute defines sustainability broadly: Sustainability encompasses solutions-driven scholarship and practice that seeks to safeguard our planet's life-support systems and enhance well-being for present and future generations. The field is defined by the problems it addresses rather than the disciplines it employs. It draws from multiple disciplines of the natural, social, engineering, design, and health sciences; from the professions and humanities; and from practical field experience in business, government, and civil society.

Recognizing that there are many definitions of sustainability, for the purposes of Emerging Opportunities grants, sustainability should include environmental, economic, and social dimensions. For a given project, those dimensions need not be equal, but they should all be present. Proposals should clearly articulate the relationship of the proposed work to sustainability.

ABOUT THE EMERGING OPPORTUNITIES PROGRAM

The Graham Institute's Emerging Opportunities Program supports collaborative sustainability research and assessment activities that span multiple disciplines and sectors and connect science to real-world

decisions and actions. A variety of financial and in-kind support is available. Learn more at: http://graham.umich.edu/emopps.

Funded projects have the following characteristics:

- **Solutions Orientation** – The project is framed in a way that connects research to real-world decisions and will yield actionable options for decision makers and practitioners.

- **Faculty Expertise from Multiple Disciplines** – The project brings together a strong team representing multiple disciplines, with preference given to projects that draw on the breadth and depth of expertise of U-M faculty and researchers from other institutions when appropriate.

- **Engaged External Partner** – The project engages a specific external partner (or partners) willing to invest their time, provide input, and work with researchers to identify actionable options.

- **Advances Scholarship** – The project supports scholarly work of faculty researchers and others.

- **Student Opportunities** – The project offers opportunities for U-M students to engage across disciplines, appreciate diversity, think systemically, and pursue action-based learning worldwide.

CATALYST GRANT OBJECTIVES & ANTICIPATED ACTIVITIES

Catalyst Grants are intended to support a range of relatively short-term, small-scale collaborative projects with at least one of the eligible RFP objectives described below. For either objective, the proposed activities should reflect the solutions orientation of the funding opportunity, and they should generate outputs that support decision-making or action.

Objective 1: Partnership development and project planning
These projects are likely to be at an early stage. They aim to help better define an issue, understand decision maker needs, develop external partnerships, gather resources, determine next steps, and/or plan for larger, solutions-oriented, collaborative projects. Proposals must include plans for follow-on funding. Example activities include, but are not limited to the following:

- Relationship building, development of partnership mechanisms and infrastructure, and other engagement activities

- Analysis or synthesis of existing data to identify knowledge gaps and needs

- Data collection and analysis to refine and focus a collaborative research project

Objective 2: Enhanced real-world application of sustainability research
These projects extend and apply existing research by developing outputs that support decision-making or action. Activities may include, but are not limited to the following:

- Development of decision-making tools, guidance or recommendations for an external partner

- Data collection, analysis and/or synthesis to answer a partner's critical follow-up question

- Training and capacity-building

- Proofs of concept[1]

See the guidance at the end for details on project outputs and outcomes.

NOTE: Catalyst grants may be used to support a portion of a larger project; however, proposals must make it clear what the catalyst grant would enable, how that work is distinct from other activities, and how it is aligned with this RFP. To assist reviewers in assessing the feasibility of the work, be sure to indicate

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[1] In general, catalyst grants are not intended for implementation projects. Projects may include a proof of concept, but it should be clear how the focus of work is to support decision-making or action.

whether resources have been secured for other aspects of the work that would not be covered by the catalyst grant but are critical to the success of the catalyst work.

ELIGIBILITY

Proposed projects must be led by a U-M researcher or faculty member who is eligible to serve as a U-M Principal Investigator (PI). The definition of a U-M PI can be found at: http://orsp.umich.edu/principal-investigator-pi. U-M Faculty from the Flint, Dearborn, and Ann Arbor campuses are eligible to serve as a PI or Co-Investigator (Co-I).

All projects involve collaboration across disciplines and the U-M campuses. Specifically, there **MUST** be representation of at least two disciplines AND at least two U-M academic units (U-M faculty handbook) or research units (UMOR and Office of the Provost) among the **U-M faculty or researchers** listed as PIs and Co-Is. The disciplinary and unit requirements are distinct. For instance, meeting the unit requirement may not be sufficient to meet the disciplinary breadth requirement.

The two-unit minimum requirement can be fulfilled by a PI and Co-I both within the College of Literature, Science, and the Arts (LSA) provided there is representation from at least two of the three LSA Divisions (i.e., Humanities, Natural Sciences, Social Sciences). Although other U-M units also have disciplinary diversity, this exception to the two-unit minimum is available solely for LSA based on the school's breadth and size. If an investigator (PI or Co-I) has a joint appointment (e.g., active appointments in multiple units), either one of those units (but not both) may be used in combination with unit(s) represented by other investigators on the team to meet the two-unit minimum; however, a dry appointment in a unit would not qualify.

These requirements do not limit the number of investigators on a team. The team may include multiple investigators from the same unit or same discipline so long as the team also meets both the unit and disciplinary requirements.

Co-Is and team members from other institutions and organizations are allowed.

A PI already supported by a Catalyst Grant may not be listed as an investigator (PI or Co-I) on new Catalyst Grant proposals until the first project has finished. Graham Institute staff may not be listed as members of a project team.

CATALYST GRANT WEBPAGE

All proposal materials and resources will be posted online on the Catalyst Grant webpage: http://graham.umich.edu/emopps/catalyst.

LETTER OF INTENT REQUIREMENTS

A letter of intent (LOI) is required. LOIs must be submitted by 11:59 PM EDT on Monday, October 8, 2018 via the application link on the Catalyst Grant webpage: http://graham.umich.edu/emopps/catalyst.

Information gathered through LOIs will be used exclusively to guide recruitment of appropriate reviewers and will not influence the proposal evaluation process. Staff may also initiate discussions with applicants based on information provided in the letters; however, applicants do not need an invitation to submit a proposal. LOIs are not binding, and changes to the scope, team, activities, etc. are permitted in the proposal.

To submit the LOI, enter the team information requested into the online form and include the following information, organized using the same headings, in a single pdf file using 12-point Times New Roman font, single-spacing, and one-inch margins.

1. Project team - Principal Investigator (PI) and Co-Investigators (Co-Is) names and contact information.

2. RFP objective – Indicate the RFP objective to which your project relates, i.e., Objective 1: Partnership development and project planning or Objective 2: Enhanced real-world application of sustainability research. The proposal may address multiple objectives but a single, primary objective must be indicated here.

3. Draft project title

4. Project summary – Provide up to one page describing the planned work, including the anticipated external partner(s), activities, outputs, outcomes, and impact.

You will receive an email confirming successful submission of the LOI and providing a unique URL for your application. **Save this email – you will need this URL to submit your proposal.**

If you do not receive this email, your application was not submitted properly and you should resubmit or contact us directly at grahaminstitute-emopps@umich.edu.

PROPOSAL REQUIREMENTS

Proposals must be submitted by 11:59 PM EST on Monday, November 12, 2018 using the unique application URL emailed to applicants after LOI submittal.

The unique URL will prompt you to log in and then direct you to your application in the Graham online system. Update the team information as needed in the online form, then scroll down towards the end of the page to the proposal upload field, upload your complete proposal, and click on the "save" button. Please note that in order to submit the proposal, the login credentials must be the same as those used to submit the LOI.

Proposals must be provided as a single pdf file using 12-point Times New Roman font, single-spacing, and one-inch margins, and be organized using the headings below. Proposals must include a title page, a project narrative, and appendices as outlined below.

Title page (1 page maximum)
Organize your title page using the following headings:

1. Project title

2. Principal investigator (primary contact for project) – Name, title/position, U-M unit, telephone, mailing address, and email address

3. Additional co-investigators – Name, institution, telephone, and email address

4. Additional team members (anyone receiving project resources or contributing significant resources to the project) – Name, institution, telephone, email address, and nature of contribution, if relevant.

5. Date – Of submission

6. RFP objective – Indicate the RFP objective to which your project idea relates, i.e., Objective 1: Partnership development and project planning or Objective 2: Enhanced real-world application of sustainability research. The proposal may address multiple objectives but a single, primary objective must be indicated here.

7. <u>Non-technical summary</u> – Provide a 250-word summary suitable for a non-technical audience. Include the project's objectives, who will use the outputs, and anticipated outcomes.

Project narrative (4 pages maximum)
Organize your narrative using the following underlined headings and subheadings. Suggested page lengths for sections are offered.

1. <u>Problem Statement & Project Objective (~1 page)</u>

   This section should make it clear how the proposed work exemplifies the <u>characteristics</u> of Emerging Opportunities projects, particularly the solutions orientation, multidisciplinary approach, and external partner engagement.

   i) Identify the sustainability challenge the project proposes to address, discussing its importance and relevant context. Identify the external partner(s) and describe their interest and role in the proposed work. For Objective 1 proposals, the partner(s) may be clearly identified already or, if the purpose of the proposed work is to identify partners and build partnerships, the proposal should still identify specific potential partners and describe their anticipated interest in the proposed work. Objective 2 proposal partners must be clearly identified.

   ii) Be explicit about the <u>RFP objective</u> you seek to achieve. For Objective 1 proposals, explain how the proposed work will foster partnership development and/or advance project planning efforts. For Objective 2 proposals, explain how the proposed work is distinct from existing research, whose decision-making or action it will support, and how the work is designed to meet those needs.

2. <u>Outputs and Outcomes (~0.75 page)</u> – List and describe the project outputs (i.e., tangible products created or services delivered) and anticipated outcomes (i.e., positive real-world changes resulting directly from outputs). Refer to the guidance at the end for additional details. For Objective 1 proposals, this section should also include plans for follow-on funding.

3. <u>Project Approach (~1.75 pages)</u>

   i) <u>Activities</u> - Describe the project approach, including the specific activities that will achieve the project outputs and outcomes.

   ii) <u>Data</u> - Identify required data sources and describe how the team will access them. Given the solutions orientation and the timelines of the grants, projects should already have or be able to access quickly sufficient information for an effective analysis or synthesis. Limited data collection is appropriate provided it is feasible and aligned with the project's objective.

   iii) <u>Evaluation</u> - Describe how the team will evaluate the implementation and outcomes of the project, including clear and appropriate measures of success. Teams are encouraged to consider how they can use evaluation to improve the project as it unfolds. Refer to the guidance at the end for additional details.

   iv) <u>Scholarship & Students</u> - Explain how the work will support faculty scholarship and create opportunities for U-M students.

4. <u>Project team (~0.5 page)</u> – Identify each team member and describe their role on the project (i.e., the activities/outputs to which they will contribute). Briefly describe how the integration of insights from the multiple perspectives contributes to the project.

2) Appendices

1. <u>References</u>

2. <u>Proposal approval form</u> – Complete the <u>proposal approval form</u> found on the Catalyst Grant webpage. Please allow time to route this form for signatures according to the policies and procedures in your campus unit.

3. Budget – Using the budget template found on the Catalyst Grant webpage, include the budget for this project. Awards will be funded at a level of up to $10,000 for eight months. No indirect costs or equipment purchases will be allowed. Matching funds are not required.

4. Budget justification – Provide a narrative that fully explains the relationship of costs to accomplish the proposed activities and the basis for cost estimates. If faculty salary support is requested, provide detail (for whom, nature and percent of appointment, period of time, amount).

5. Timeline – Using the timeline template found on the Catalyst Grant webpage, identify anticipated start and end dates for the proposed work. Identify significant tasks and activities. The timeline must include completion of the final project outputs.

6. Resumes – Include two-page resumes for each team member named on the proposal.

7. Other supporting documents – You may include up to five pages of supporting documents as appendices.

REVIEW CRITERIA AND PROCESS

Graham Institute staff will review submitted proposals to ensure they meet the requirements as described in this RFP. Proposals meeting the minimum requirements will then be reviewed by a U-M faculty member from the home unit of the PI and/or with similar research area expertise and two additional U-M faculty for breadth according to the criteria below.

- Project approach – Does the project have a solutions orientation that connects research to real-world decisions and actions? Is the approach sufficiently described and appropriate for the identified RFP objective and sustainability challenge?

- Project team – Does the project bring together a team that spans at least two disciplines and at least two U-M academic units? Does the team have adequate expertise and experience for the proposed work? Is the proposal clear about how each member will contribute and how the integration of insights from the multiple perspectives contributes to the project?

- External partners – Does the proposal identify an appropriate specific external partner, or potential external partner, who has interests related to the sustainability challenge described in the proposal? Is their role clear?

- Feasibility – Is sufficient information available and accessible or able to be gathered? Is the timeline realistic? Is the budget appropriate for the proposed work?

- Potential impact – Are the proposed activities and outputs likely to lead to the anticipated outcomes and impacts? Is the significance of the work clear and compelling? Does the proposal describe an evaluation process that includes appropriate and specific measures of success?

- Scholarship – Will the project advance understanding? Is there a clear articulation of how the work will contribute to scholarship?

- Students – Are there opportunities for U-M students?

As part of its commitment to diversity, equity and inclusion, the Graham Institute seeks to support a diverse group of grant recipients and to be inclusive of new collaborations. This goal will be taken into consideration when making funding decisions after qualified proposals are identified by the faculty reviewers.

A funding decision letter will be sent to the PI and will include a summary of comments from the reviewers.

REQUIREMENTS FOR CATALYST GRANT RECIPIENTS

Catalyst Grant recipients will be required to:

- Participate in two verbal project check-ins with Graham staff (kick-off and late project).

- Submit a brief mid-project report that describes progress on activities, outputs, and anticipated outcomes outlined in the proposal and any challenges experienced (~2 pages).

- Submit a final written report that describes the overall results and progress relating to the objectives and specific measures of success presented in the original proposal.

- Share additional project outputs (e.g., articles, guides, graphics, factsheets) with the Graham Institute.

- Participate in an annual Graham-sponsored meeting with U-M sustainability researchers to share findings.

- Respond to Graham Institute surveys about the impact of Emerging Opportunities funding and staff support, and project details.

- Mention Graham Institute support in any publications, presentations of project results, and formal project communications (press releases, social media, etc.) - provide information to Graham Institute staff related to these efforts.

- Respond to requests to review proposals during future funding cycles.

QUESTIONS ABOUT THIS RFP

Please direct all questions related to this RFP to Maggie Allan, Emerging Opportunities Program Manager (maallan@umich.edu, 734-763-0749). Program staff will maintain and regularly update a Frequently Asked Questions document available on the Catalyst Grant webpage.

GUIDANCE

The following offers detail and clarification regarding key terms used in this RFP and required proposal elements.

Solutions orientation
- Framing that connects science to real-world decisions; results can be used as a basis for decision-making or action; work is at the point of application.

External partner
- Individual(s) or organization(s) outside the university who are involved directly with the topic of interest either as a practitioner or decision maker. External partners can be from one or several sectors (government, industry, non-governmental, community, etc.) based on the focus of the project. External partners should be in a position to utilize project outputs—in decision-making, implementing strategies, scaling results, and furthering project objectives. Their input should be integrated into the project.

  Researchers from other academic organizations are unlikely to meet these criteria. More likely, they would be collaborators. Note that this does not preclude external partners from being members of the project team or participating in science co-production.

Stakeholder
- A stakeholder is anyone who is affected by or has an interest or stake in a particular issue. Examples of stakeholders include members of local, state, federal or tribal agencies; business

leaders and industry representatives; representatives from non-profit groups or other citizen organizations; and individuals from loosely defined user groups, such as local residents, recreational boaters or farmers. All external partners are also stakeholders, but not all stakeholders are partners.

Project Outputs and Outcomes
- <u>Outputs</u> are tangible products created or services delivered during or upon project completion. They may include, but are not limited to:
  - Scientifically produced data, analyses, and syntheses.
  - An evaluation of existing decision-making information needs.
  - Events such as conferences or workshops.
  - Translational products that support decision-making or action. Examples include, but are not limited to, white papers, guides, recommendations, factsheets, scenarios, and plans for future initiatives.
  - Scholarly work – While catalyst grant projects may, and are encouraged to, contribute to scholarly work, **the main project outputs should be designed to support decision-making or action.**

- <u>Outcomes</u> are positive changes resulting directly from outputs. Outcomes can occur over the short or long-term. They include how the work will change or influence knowledge, behavior, practices, procedures, or policy to advance sustainability. Examples include, but are not limited to:
  - Better understanding of a topic
  - Identification of key issues, decision makers, or priorities
  - New or strengthened collaborative partnerships
  - New or refined decision-making, management, strategies, or action
  - Leveraged funding and spinoff projects

Scholarly work
- Scholarly work includes activities (e.g., publications, presentations, and creative works) which disseminate project outputs and outcomes and advance U-M faculty scholarship.

Student opportunities
- The student opportunity review criterion is in reference to University of Michigan students (undergraduate through doctoral). Proposed projects involving students from outside the University of Michigan are not ineligible for funding, but should consider ways to involve University of Michigan students.

Measures of success
- Measures (indicators or metrics) of success are specific and observable accomplishments or changes that show the effect of the project. They may be quantitative or qualitative, and they may focus on the extent to which an anticipated output/outcome is achieved or the quality of the processes leading to that output/outcome.

Evaluation
- The Graham Institute continually seeks to improve its program and processes in order to better support successful collaborative research efforts and to improve project and program outcomes. The evaluation component of catalyst grants offers the opportunity for the Graham Institute to learn alongside project teams.

Applicants are encouraged to design their evaluation to be useful by considering who will use the results and for what purpose. For instance, evaluations can help project teams improve the project, communicate results, or inform future work, and they can support external partners' decision-making.

Proposals should describe initial plans for assessing <u>both</u> project implementation and outcomes, although the balance between the two will depend on the specific project. For instance, catalyst grants are likely to focus more heavily on implementation.

- <u>Implementation evaluation</u> – focuses on processes to assess the extent to which the project is functioning as planned, measures what and how much was accomplished (e.g., outputs), and identifies major challenges and successful strategies.

- <u>Outcome evaluation</u> – focuses on outcomes, including unintended effects, to judge the overall effects of a project.

Proposals should identify overarching evaluation questions (i.e., which aspects of implementation and outcomes will be assessed), the general method(s) for answering those questions, and clear and appropriate measures of success. Recognizing that project evaluation efforts and reporting will be <u>completed during the project period</u>, a focus on outputs and short-term outcomes is expected; however, applicants should consider how longer-term outcomes and impacts to which the work contributes could be assessed.